



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

D5623-041
Job Sheet 186382

Accounting Job RD18-1056-01



POSITIVE RECALL

EFFECTIVE NOV 15 2018

RELEASED 9 DATE 19-01-71

Priority: Medium

Rev B

ECN18845

Part No: D5623-041

Job Qty: 1 ea

Part Name: Fwd Skidtube Protector, LH



Part Weight: 0 lbs

Status: New

Job Created: 11/15/18

Job Tracking No:

Due Date: 11/29/18

Created By: Marie Lajeunesse

Type: R+D

Description:

Note: DWG D5623 REV.B PRELIM IPP REV A 18.05.22 NEW ISSUE RQ VERIFIED BY DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
110	Waterjet - Flow - 1	1 pcs	11/29/18	11/29/18	0.00	0.06	Waterjet - Flow		SC 18/11/15
120	QC	1 pcs	11/29/18	11/29/18	0.00	0.00	QC2 Waterjet-2		SC 18/11/15
130	QC	1 pcs	11/29/18	11/29/18	0.00	0.00	QC8-2		NOV 19 2018
140	Brake NC	1 pcs	11/29/18	11/29/18	0.12	0.01	Brake NC 1		8B
150	QC	1 pcs	11/29/18	11/29/18	0.00	0.00	QC5		EL
160	Large Fab	1 pcs	11/29/18	11/29/18	0.00	0.25	Large Fab 1		1BC
170	QC	1 pcs	11/29/18	11/29/18	0.00	0.00	QC9		EL
180	QC	1 pcs	11/29/18	11/29/18	0.00	0.00	QC5		EL
190	HandFinish	1 pcs	11/29/18	11/29/18	0.00	0.03	HandFinish4		RD 19-1-9
200	QC	1 pcs	11/29/18	11/29/18	0.00	0.00	QC3		APR 03 2019
210	Packaging	1 pcs	11/29/18	11/29/18	0.00	0.00	Packaging3-1		APR 04 2019
220	QC21-SA	1 Ea	11/29/18	11/29/18	0.00	0.00	QC21		APR 04 2019

Part Op 110 - 1-Cut D5623-1F as per Dwg D5623 Dwg Rev: B Prog Rev: B 2-Debur if necessary

Descriptions: 160 - -Weld as per dwg. -Index clamp as per dwg note 11

190 - APPLY TEXTURED COATING ON CONCAVE SURFACE ****AS PER NOTE 2 AND 3**** ON DWG AND QSI

BATCH: 5117896 ***INDICATE FWD DIRECTION AS SHOWN PER NOTE 12 USING WHITE PAINT MARKER***

210 - LOCATION : FP001

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
M304S20GA	304/316 040 Sheet	1.2290 sf (1.229 ea)	110-Waterjet - Flow - 1	5123205
MS21920-25	Clamp	2 Ea (2 ea)	160-Large Fab	5112885

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
110-Waterjet - Flow - 1	M304S20GA	1	135	0
160-Large Fab	MS21920-25	2	218	0

Part Specifications

Specifications could not be found.

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Engineering ☐ Quality ☐ Other ☐																																																																																																																											
Date : _____	Step #: _____	QTY Effective _____		(1042) Approval _____																																																																																																																									
Description Work Order Deviation Container No: S128281 Part: D5623-041 Job No: 186382 Serial No/ Batch: S128281 Revision: B - PRELIM Inspector: _____ Exp Date: _____ Instructions: Various STC's Date: 11/15/18																																																																																																																													
Deleted By _____ Supervisor Verification _____ Coordinator Val _____																																																																																																																													
Dart Aerospace Ltd. 1278 Aberdeen Street Haverhill, ON K6A 1K7 CANADA TEL : 1 813 632 - 5200 Email: sales@dartaero.com www.dartaerospace.com																																																																																																																													
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Root Cause <table style="width:100%;"> <tr><td>Environment</td><td>☐</td><td>No Re-verification</td><td>☐</td></tr> <tr><td>Design</td><td>☐</td><td>Operator</td><td>☐</td></tr> <tr><td>Doc/Data</td><td>☐</td><td>Offset/Setup</td><td>☐</td></tr> <tr><td>Equip/Tooling</td><td>☐</td><td>Supplier</td><td>☐</td></tr> <tr><td>Handling/Pre</td><td>☐</td><td>Training</td><td>☐</td></tr> <tr><td>Material</td><td>☐</td><td>Use for Testing</td><td>☐</td></tr> <tr><td>Internal Transport</td><td>☐</td><td>Poor Information</td><td>☐</td></tr> <tr><td>Tribal Knowledge</td><td>☐</td><td>Rushing</td><td>☐</td></tr> <tr><td>LOA</td><td>☐</td><td>Product Improvement</td><td>☐</td></tr> <tr><td>Substation</td><td>☐</td><td>Process Improvement</td><td>☐</td></tr> <tr><td>Past Expiry Date</td><td>☐</td><td>Manufacturing Process</td><td>☐</td></tr> <tr><td>Misidentified</td><td>☐</td><td>Past Due</td><td>☐</td></tr> </table>		Environment	☐	No Re-verification	☐	Design	☐	Operator	☐	Doc/Data	☐	Offset/Setup	☐	Equip/Tooling	☐	Supplier	☐	Handling/Pre	☐	Training	☐	Material	☐	Use for Testing	☐	Internal Transport	☐	Poor Information	☐	Tribal Knowledge	☐	Rushing	☐	LOA	☐	Product Improvement	☐	Substation	☐	Process Improvement	☐	Past Expiry Date	☐	Manufacturing Process	☐	Misidentified	☐	Past Due	☐	<table style="width:100%;"> <tr><td>Pressure/Forced</td><td>☐</td><td>Weld</td><td>☐</td><td>Positioned Wrong</td><td>☐</td></tr> <tr><td>Bending</td><td>☐</td><td>Wrong Stock Pulled</td><td>☐</td><td>Outside Dimensions</td><td>☐</td></tr> <tr><td>Centre Not Conce</td><td>☐</td><td>Out of Sequence</td><td>☐</td><td>Over/Under tolerance</td><td>☐</td></tr> <tr><td>Cracks</td><td>☐</td><td>Off-set</td><td>☐</td><td>Part Incorrect</td><td>☐</td></tr> <tr><td>Crimp/Kink/Ripple/</td><td>☐</td><td>Mislabeled</td><td>☐</td><td>Part Lost/Missing</td><td>☐</td></tr> <tr><td>Cuffs</td><td>☐</td><td>Fit/Function</td><td>☐</td><td>Part Moved</td><td>☐</td></tr> <tr><td>Contamination</td><td>☐</td><td>Misaligned/off center</td><td>☐</td><td>Drawing</td><td>☐</td></tr> <tr><td>Countersink</td><td>☐</td><td></td><td></td><td>Finish</td><td>☐</td></tr> <tr><td>Cut Too Short</td><td>☐</td><td></td><td></td><td>Misread</td><td>☐</td></tr> <tr><td>Instructions Incomplete/Unqualified</td><td>☐</td><td></td><td></td><td>Turning Sequence</td><td>☐</td></tr> <tr><td>Instructions Incomplete/Unclear</td><td>☐</td><td></td><td></td><td></td><td></td></tr> <tr><td>Drill Holes</td><td>☐</td><td></td><td></td><td></td><td></td></tr> </table>				Pressure/Forced	☐	Weld	☐	Positioned Wrong	☐	Bending	☐	Wrong Stock Pulled	☐	Outside Dimensions	☐	Centre Not Conce	☐	Out of Sequence	☐	Over/Under tolerance	☐	Cracks	☐	Off-set	☐	Part Incorrect	☐	Crimp/Kink/Ripple/	☐	Mislabeled	☐	Part Lost/Missing	☐	Cuffs	☐	Fit/Function	☐	Part Moved	☐	Contamination	☐	Misaligned/off center	☐	Drawing	☐	Countersink	☐			Finish	☐	Cut Too Short	☐			Misread	☐	Instructions Incomplete/Unqualified	☐			Turning Sequence	☐	Instructions Incomplete/Unclear	☐					Drill Holes	☐				
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DART AEROSPACE LTD		Work Order:	186382
Description: FWD SKX kabe protector LH		Part Number:	125623-041
Inspection Dwg: D5623	Rev: A	Page 1 of 1	

INSPECTION SHEET

[illegible]

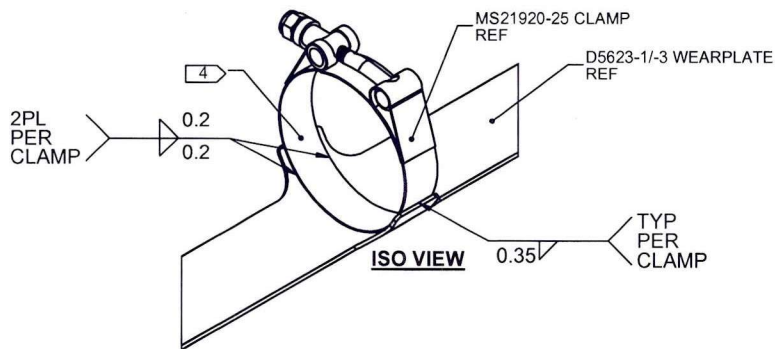
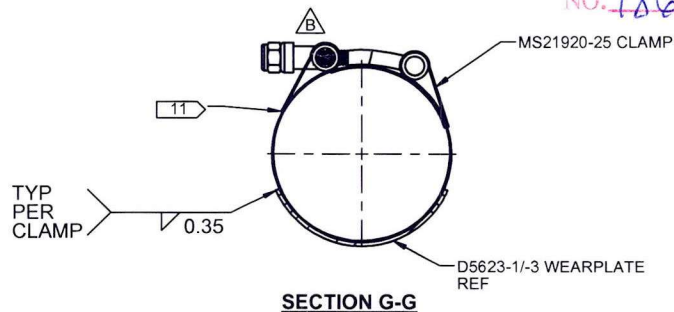
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Date:	18/11/15	Date:	9-89	Date:	

Engineering Approval: (If necessary)		Date:	
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Rev	Date	Change	Revised by	Approved
A	14.07.31	New Issue	KJ	

ITEM	QTY -041	QTY -043	P/N	DESCRIPTION
1	X		D5623-041	FWD WEARPLATE ASSY LH
2		X	D5623-043	AFT WEARPLATE ASSY LH
3	1		D5623-1	FWD WEARPLATE
4		1	D5623-3	AFT WEARPLATE
5	2	1	MS21920-25	CLAMP

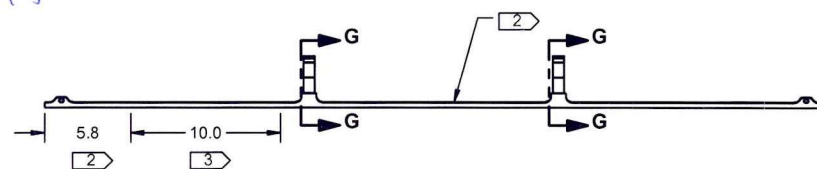
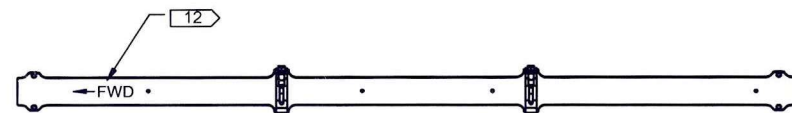
SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 186382 MWS
18-11-15



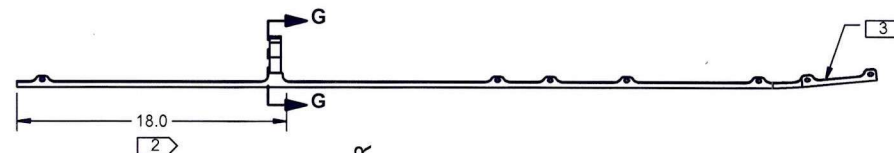
B

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: COAT ENTIRE TOP (CONCAVE) SURFACE WITH TEXTURED COATING, 0.020-0.040 THICK, PER DART QSI 005 SECTION 4.9
- 3) FINISH: COAT ENTIRE TOP (CONCAVE) SURFACE WITH TEXTURED COATING, 0.060-0.080 TOTAL THICK, PER DART QSI 005 SECTION 4.9
- 4) FINISH: COAT ENTIRE INNER (CONCAVE) SURFACE OF MS21920 CLAMP WITH TEXTURED COATING, 0.020-0.040 THICK, PER DART QSI 005 SECTION 4.9
- 5) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) UNITS: INCHES UNLESS OTHERWISE NOTED
- 7) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 8) IDENTIFICATION: IDENTIFY WITH DART P/N "D5623-04X" USING FINE POINT PERMANENT INK MARKER PER DART QSI 044 SECTION 6.1
- 9) WEIGHT: D5623-041 = 2.04 lbs, D5623-043 = 2.29 lbs
- 10) WELDING: PER DART QSI 004
- 11) INDEX MS21920-25 CLAMP TABS WITH WEARPLATE AT THIS LOCATION
- 12) INDICATE FWD DIRECTION IN LOCATION SHOWN USING WHITE PAINT MARKER



D5623-041 FWD WEARPLATE ASSEMBLY LH

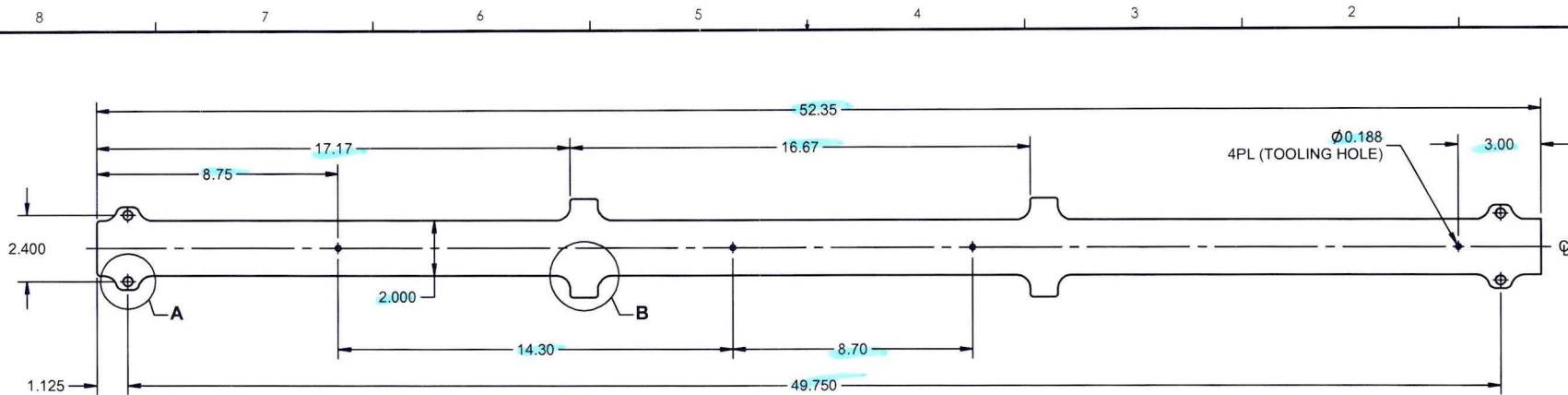


D5623-043 AFT WEARPLATE ASSEMBLY LH

PRELIMINARY ISSUE

B	UPDATED MS21920-25 ORIENTATION: -1/-3 MATERIAL THICKNESS 16 GAUGE WAS 18 GAUGE		SAD	18.11.07
A	NEW ISSUE		WK	18.03.25
REV.	DESCRIPTION		BY	DATE
DESIGN	WK	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		
DRAWN	SAD			
CHECKED	RF		DRAWING NO.	REV. F
MFG. APPR.	DD		D5623	SHEET 1 OF 4
APPROVED	VS		TITLE	SCALE
DE APPR.	DS	WEARPLATE ASSY		NTS
DATE	18.11.07		COPYRIGHT © 2018 BY DART AEROSPACE LTD	
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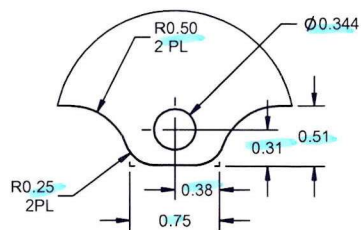
APPROVED BY DESIGN MANAGER



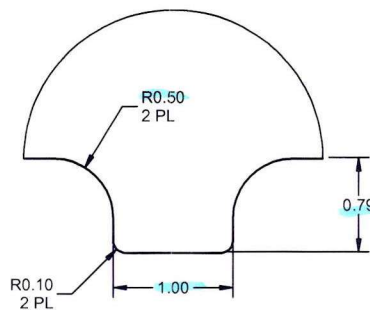
D5623-1F FLAT PATTERN



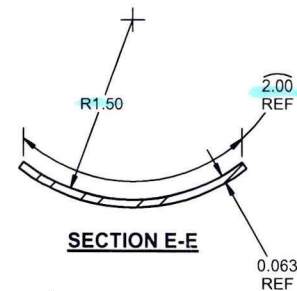
D5623-1 FWD WEARPLATE
(MAKE FROM D5623-1F)



DETAIL A



DETAIL B



SECTION E-E

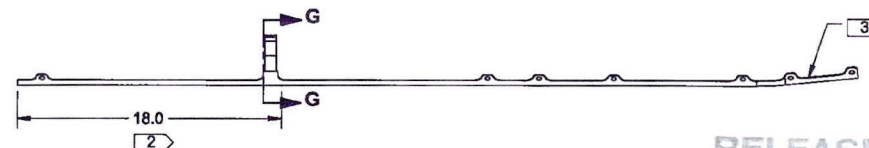
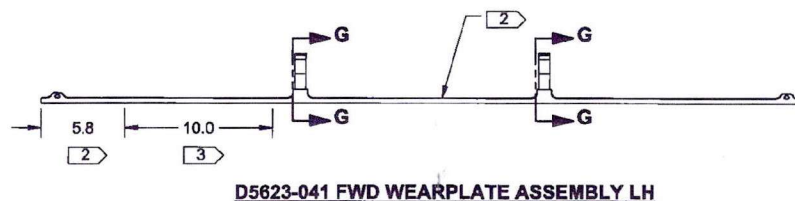
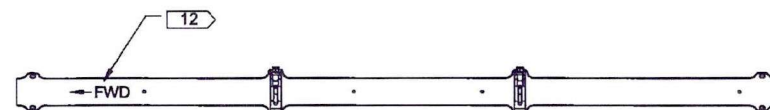
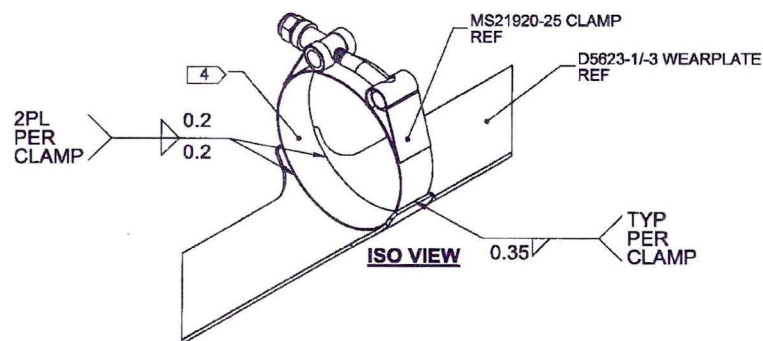
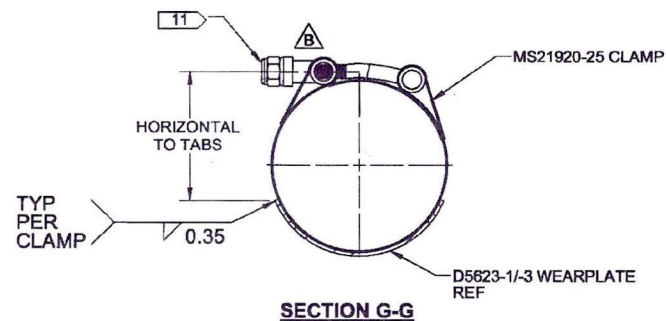
PRELIMINARY ISSUE

- NOTES:**
- 1) MATERIAL: AISI 304/316 SS SHEET, 0.063 THICK (16 GAUGE)
PER AMS 5513 OR 5524 OR ASTM A240 OR ASME SA240
REF DART SPEC M304S16GA
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: NONE
 - 7) WEIGHT: D5623-1 = 2.00 lbs
 - 8) ALL NON DIMENSIONED FEATURES PER CAD FILES D5623-1F_REV.B.DXF

APPROVED BY DESIGN MANAGER

DESIGN	WK	DART AEROSPACE LTD	
DRAWN	SAD	HAWKESBURY, ONTARIO, CANADA	
CHECKED	RF	DRAWING NO.	REV. B
MFG. APPR.	DD	D5623	SHEET 3 OF 4
APPROVED	VS	TITLE	SCALE
DE APPR.	DS	WEARPLATE ASSY	NTS
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ITEM	QTY -041	QTY -043	P/N	DESCRIPTION
1	X		D5623-041	FWD WEARPLATE ASSY LH
2		X	D5623-043	AFT WEARPLATE ASSY LH
3	1		D5623-1	FWD WEARPLATE
4		1	D5623-3	AFT WEARPLATE
5	2	1	MS21920-25	CLAMP



RELEASED

2018 NOV 30

Rev 18-045

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: COAT ENTIRE TOP (CONCAVE) SURFACE WITH TEXTURED COATING, 0.020-0.040 THICK, PER DART QSI 005 SECTION 4.9
- 3) FINISH: COAT ENTIRE TOP (CONCAVE) SURFACE WITH TEXTURED COATING, 0.060-0.080 TOTAL THICK, PER DART QSI 005 SECTION 4.9
- 4) FINISH: COAT ENTIRE INNER (CONCAVE) SURFACE OF MS21920 CLAMP WITH TEXTURED COATING, 0.020-0.040 THICK, PER DART QSI 005 SECTION 4.9
- 5) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) UNITS: INCHES UNLESS OTHERWISE NOTED
- 7) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 8) IDENTIFICATION: IDENTIFY WITH DART P/N "D5623-04X" USING FINE POINT PERMANENT INK MARKER PER DART QSI 044 SECTION 6.1
- 9) WEIGHT: D5623-041 = 2.04 lbs, D5623-043 = 2.29 lbs
- 10) WELDING: PER DART QSI 004
- 11) MS21920-25 CLAMP BOLT MUST BE POSITIONED HORIZONTAL TO WEARPLATE TABS
- 12) INDICATE FWD DIRECTION IN LOCATION SHOWN USING WHITE PAINT MARKER

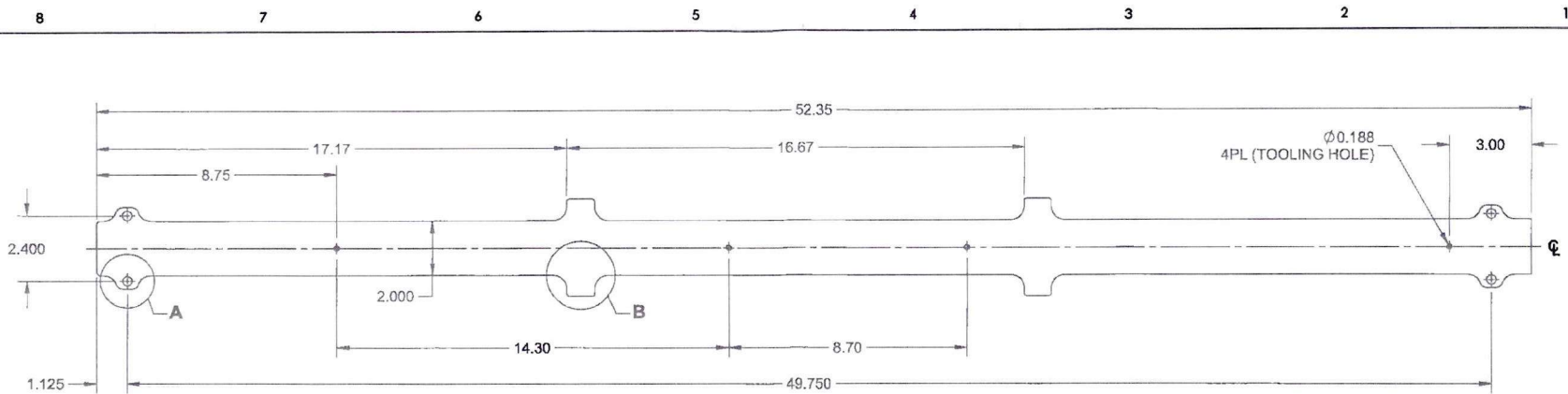
B	UPDATED MS21920-25 ORIENTATION: -1/-3 MATERIAL THICKNESS 16 GAUGE WAS 18 GAUGE	SAD	18.11.07
A	NEW ISSUE	WK	18.03.25
REV.	DESCRIPTION	BY	DATE
DESIGN	WK		
DRAWN	SAD		
CHECKED	WK		
MFG. APPR.	DD		
APPROVED	VS		
DE APPR.	DS		
DATE	18.11.07		

APPROVED

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

DRAWING NO.
D5623
REV. B
SHEET 1 OF 4
SCALE
NTS

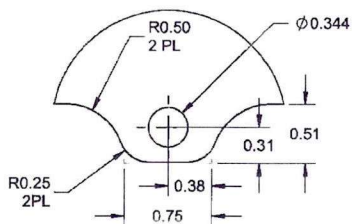
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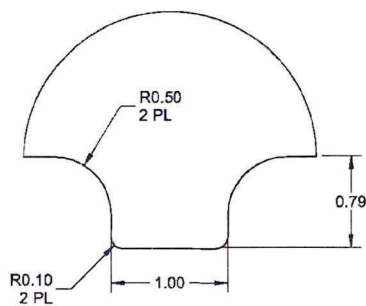
D5623-1F FLAT PATTERN



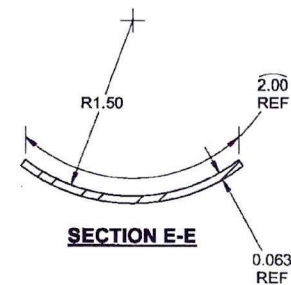
D5623-1 FWD WEARPLATE
(MAKE FROM D5623-1F)



DETAIL A



DETAIL B



SECTION E-E

RELEASED
2018 NOV 30

- NOTES:**
- 1) MATERIAL: AISI 304/316 SS SHEET, 0.063 THICK (16 GAUGE)
PER AMS 5513 OR 5524 OR ASTM A240 OR ASME SA240
REF DART SPEC M304S16GA
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: NONE
 - 7) WEIGHT: D5623-1 = 2.00 lbs
 - 8) ALL NON DIMENSIONED FEATURES PER CAD FILES D5623-1F_REV.B.DXF

APPROVED

DESIGN	WK	DART AEROSPACE LTD	
DRAWN	SAD	HAWKESBURY, ONTARIO, CANADA	
CHECKED	WK	DRAWING NO.	REV. B
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